

What is claimed is:

1. A shearwall, comprising:
 - a central diaphragm, including
 - a top edge and a bottom edge generally defining a height of said central diaphragm,
 - first and second ends, extending between the top and bottom edges, generally defining a width of said central diaphragm, and
 - a corrugated section extending at least partially between said top edge and said bottom edge in between said first and second ends, said corrugated section forming at least one corrugation.
2. A shearwall as recited in claim 1, further comprising a sill plate affixed at said bottom edge of the central diaphragm and having a footprint at least as large as the footprint of said central diaphragm.
3. A shearwall as recited in claim 1, further comprising first and second chords affixed one each to said first and second ends.
4. A shearwall as recited in claim 3, wherein said first and second chords are each formed of 2 inch x 4 inch wood.
5. A shearwall as recited in claim 3, further comprising a sill plate affixed at said bottom edge of the central diaphragm and having a footprint at least as large as the combined footprint of said central diaphragm and said first and second chords together.

6. A shearwall as recited in claim 1, wherein said central diaphragm is formed of 7-gauge steel.
7. A shearwall as recited in claim 1, further comprising a channel in which said central diaphragm is seated.
8. A shearwall as recited in claim 7, further comprising a sill plate affixed to a bottom edge of said channel and having a footprint at least as large as the combined footprint of said channel and said first and second chords together.
9. A shearwall as recited in claim 1, said at least one corrugation being defined by a pair of angled sections extending along said height dimension from a first plane at a back edge of the central diaphragm and angling inward toward each other, said angled sections terminating in a second plane at a front edge of the central diaphragm, and said at least one corrugation further being defined by a front planar section in said second plane and extending between said pair of angled sections.
10. A shearwall as recited in claim 1, said at least one corrugation extending from said top edge to said bottom edge.
11. A shearwall as recited in claim 1, said at least one corrugation extending from said bottom edge and terminating at a position between said bottom edge and said top edge.
12. A shearwall as recited in claim 1, said at least one corrugation including two corrugations.

13. A shearwall as recited in claim 1, said central diaphragm including at least one aperture.
14. A shearwall as recited in claim 1, said central diaphragm including at least one embossment.
15. A shearwall as recited in claim 1, said central diaphragm including at least one stiffening lip.
16. A shearwall, comprising

a central diaphragm having a height, width and depth, each being perpendicular to each other, and a corrugation extending in the direction of said height of said central diaphragm;
first and second chords affixed to said central diaphragm at opposed edges of said central diaphragm and extending in the direction of said height of said central diaphragm; and
a sill plate affixed to a bottom of the shearwall, said sill plate having a footprint at least as large as said central diaphragm and said first and second chords together.
17. A shearwall as recited in claim 16, further comprising a channel in which said central diaphragm resides.
18. A shearwall as recited in claim 17, said sill plate having a width greater than that of said channel.
19. A shearwall as recited in claim 16, said sill plate being formed of $\frac{1}{2}$ inch thick steel.

20. A shearwall as recited in claim 19, said central diaphragm being formed of 7-gauge steel.
21. A shearwall as recited in claim 16, said height being 93½ inches, said width being 12 inches, and said depth being 2½ inches.
22. A shearwall as recited in claim 21, said chords each having a height approximately equal to a height of said central diaphragm, a width of 4 inches and a depth of 2 inches.
23. A shearwall as recited in claim 16, said height being 93½ inches, said width being 18 inches, and said depth being 2½ inches.
24. A shearwall, comprising:
 - a central diaphragm having a top edge and a bottom edge defining a height of said central diaphragm, first and second end sections defining a width of the central diaphragm, and a front plane and a rear plane defining a depth of said central diaphragm, said central diaphragm including:
 - a pair of rear planar sections extending at least part way between said top and bottom edges and being adjacent, respectively, to said first and second end sections, said pair of rear planar sections having a surface residing generally in said rear plane,
 - a pair of angled sections extending at least part way between said top and bottom edges and being adjacent, respectively, to said pair of rear planar sections, said pair of angled sections extending from said rear plane toward said front plane and angling toward each other, and

a front planar section extending at least part way between said top and bottom edges and being adjacent said pair of angled sections, said front planar section having a surface residing generally in said front plane.

25. A shearwall as recited in claim 24, further comprising first and second chords affixed one each to said first and second end sections.
26. A shearwall as recited in claim 24, further comprising a sill plate affixed to a bottom of the shearwall.
27. A shearwall as recited in claim 24, first and second intersection lines being defined between said pair of rear planar sections and said pair of angled sections, said first and second intersection lines being parallel to each other.
28. A shearwall as recited in claim 24, first and second intersection lines being defined between said pair of rear planar sections and said pair of angled sections, said first and second intersection lines angling in toward each other from said bottom edge to said top edge of said central diaphragm.
29. A shearwall as recited in claim 24, first and second intersection lines being defined between said pair of rear planar sections and said pair of angled sections, said first and second intersection lines angling away from each other from said bottom edge to said top edge of said central diaphragm.
30. A shearwall as recited in claim 30, said first and second intersection lines extending from said bottom edge to said top edge of said central diaphragm.

31. A shearwall as recited in claim 30, said first and second intersection lines originating at said bottom edge and terminating between said top and bottom edges.
32. A shearwall as recited in claim 24, a first intersection line being defined between a first of said angled sections and said front planar section, and a second intersection line being defined between a second of said angled sections and said front planar section, said first and second intersection lines being parallel to each other.
33. A shearwall as recited in claim 24, a first intersection line being defined between a first of said angled sections and said front planar section, and a second intersection line being defined between a second of said angled sections and said front planar section, said first and second intersection lines angling in toward each other from said bottom edge to said top edge of said central diaphragm.
34. A shearwall having a length between a top and bottom of the shearwall, comprising:
 - a first member extending in the length direction between a top and bottom of the shearwall, the first member including at least a first corrugation;
 - a second member extending in the length direction between the top and bottom of the shearwall, the second member including at least a second corrugation; and
 - a central section of variable width in a direction transverse to the length of the shearwall for affixing the first member to the second member.

35. A shearwall as recited in claim 34, where in the central section is a single unitary section extending at least partially between the top and bottom of the shearwall
36. A shearwall as recited in claim 34, where in the central section is comprised of a plurality of piece of sections positioned between the top and bottom of the shearwall.
37. A shearwall as recited in claim 34, where in the central section is welded to the first and second members.